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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/002,030	10/26/2001	Hong-Goo Kang	2000-0588	5014

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EXAMINER	
RIVERO, MINERVA	

ART UNIT	PAPER NUMBER
2655	

DATE MAILED: 02/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/002,030	KANG ET AL.	
	Examiner	Art Unit	
	Minerva Rivero	2655	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 December 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12/07/05 has been entered.

2. Claim 12 has been amended and not 'previously presented' as described in Applicants' listing of the claims.

Response to Amendment

3. In the Remarks filed 12/07/05, Applicants amended claims 1 and 12, and submitted arguments for allowability of pending claims.

Response to Arguments

4. In response to applicants' argument that Westerlund *et al.* 'completely fail to teach Applicants' invention', it is noted that the features upon which applicant

relies (i.e., *modified adaptive codebook vector, modified fixed codebook vector that is equal to c(n), determining new gain vectors g'_p and g'_c, decoder*) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Westerlund *et al.* (U.S. 6,757,654).

7. Regarding claims 1 and 12, Westerlund *et al.* disclose a method/apparatus for mitigating errors in frames of a received communication (*see communication being received by decoders* 712 and 714 in Fig. 1), comprising (1) modifying said received communication for determining a reference signal (*received communication is modified by primary decoder* 712

(see Fig. 1); Col 1, Lines 58-60; *feedback loop*, Col. 8, Lines 16-19; see Fig. 7, element 712), (2) modifying said received communication for determining a modified reference signal (*received communication is modified by redundant decoder* 714 (see Fig. 1); Col 2, Lines 11-14; *feedback loop*, Col. 8, Lines 16-19; see Fig. 7, element 714) and (3) adjusting an adaptive codebook gain based on a difference between the reference signal and the modified reference signal (Col 2, Lines 15-30; Col 4, Line 66 – Col 5, Line 26).

8. Regarding claims 2 and 13, Westerlund *et al.* disclose the method/apparatus wherein the reference signal is determined based on transmitting parameters of the received communication (Col 2, Lines 31-44; Col 4, Lines 25-32).

9. Regarding claims 3 and 14, Westerlund *et al.* disclose the method/apparatus wherein the transmitting parameters include at least a long-term prediction lag, fixed codebook, adaptive codebook gain vector g_p, fixed codebook gain vector g_c and linear prediction coefficients A(z) (Col 2, Lines 56-62; Col 3, Lines 24-33; Col 13, Line 58-Col 14, Line 7).

10. Regarding claims 4, 6, 15 and 17, Westerlund *et al.* disclose the method/apparatus wherein the reference signal is determined by adding an adaptive codebook vector with a fixed codebook vector to form an excitation

signal and passing the excitation signal through a synthesis filter (Col 2, Lines 50-62; Col 19, Lines 27-29).

11. Regarding claims 7 and 18, Westerlund *et al.* disclose the method/apparatus wherein the adaptive codebook vector is based on at least the long-term prediction lag and the fixed codebook vector is based on the fixed codebook (Col 1, Lines 39-57; Col 3, Lines 14-33; Col18, Lines 11-43).

12. Regarding claims 5, 8, 16 and 19, Westerlund *et al.* disclose the method/apparatus wherein the adaptive codebook vector is amplified by an adaptive codebook gain vector g_p and the fixed codebook vector is amplified by a fixed codebook gain vector g_c prior to being added together to form the excitation signal (Col 4, Lines 25-32; Col 4, Line 66-Col 5, Line 26).

13. Regarding claims 9 and 20, Westerlund *et al.* disclose the method/apparatus wherein the difference between the reference signal and the modified reference signal is based on a mean squared error between the reference signal and the modified reference signal (Col 2, Lines 15-24; Col 4, Lines 13-15).

14. Regarding claims 10 and 21, Westerlund *et al.* disclose the method/apparatus wherein the difference between the reference signal and the modified signal is based on the mean squared error between the reference signal

and the modifying reference signal, wherein the difference is minimized (Col 2, Lines 15-30; Col 4, Lines 13-15; Fig.3, element 316).

15. Regarding claims 11 and 22, Westerlund *et al.* disclose the method/apparatus wherein the difference between the reference signal and the modified reference signal is minimized according to the equation:

$$\min_{g'p,g'c} (N_s-1) \Sigma_{(n=0)} (h(n)*(u(n) - (g'_p v'(n) + g'_c c'(n))))^2,$$

where N_s is a subframe size and h(n) is an impulse response corresponding to 1/A(z) (Col 2, Lines 15-30; Col 4, Lines 3-15).

Conclusion

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Minerva Rivero whose telephone number is (571) 272-7626. The examiner can normally be reached on Monday-Friday 9:00 am - 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wayne Young can be reached on (571) 272-7582. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MR 2/15/06

TĀLIVALDIS IVARS ŠMITS
PRIMARY EXAMINER